Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada
Research Branch | Direction générale de la recherche

Potato Gene Resources Newsletter

Potato Research Centre

Number 13 **2006**

Heritage Accessions

Jane Percy
AAFC Fredericton

Genetic diversity in a crop is a very valuable asset. Plant breeding programmes make use of this diversity to create new and improved varieties, with increased disease and pest resistance and other desirable traits.

Potatoes such as the variety "Shepody", produced from a cross of F58050 and Bake King, and released in 1980 from the AAFC Potato Research Centre, Fredericton, are the result of many years of scientific breeding and selection for traits which produce great fries and fresh market potatoes.

Heritage potatoes are frequently very different from modern bred varieties. They are often colourful and uniquely shaped. Their great diversity of skin and flesh colour combined with unusual tuber shapes, textures and flavours, make heritage potatoes intriguing. These old varieties have often been grown in one location and even by the same family for generations.

Heritage potatoes, such as Pink Fir Apple, Royal Kidney, or Skerry Blue which have survived for over 100 years, usually originated by chance and often the parentage is unknown. Sometimes simple crosses of two favourite potato varieties were made by gardeners. The resulting new varieties were then grown in expectation of improvement in yield or cooking quality.

Heritage potatoes, with their hereditary potential waiting to be discovered, their popularity in speciality markets and their wonderful range of colours and tastes may contribute to future plant breeding programmes and this is an important reason to preserve and maintain them. This premise was the starting point for a joint project between Plant Gene Resources of Canada and Seeds of Diversity Canada. Over the next few years heritage accessions will be identified, freed of disease if necessary, and banked in the Potato Gene Resources Repository.

Potato Gene Resources Newsletter

The Potato Gene Resources Newsletter is an annual publication of the Potato Gene Resources Repository, Potato Research Centre, Agriculture and Agri-Food Canada. The Newsletter provides information on potato germplasm in the Repository and on issues related to the genetic diversity in the potato. The opinions expressed by authors may not necessarily represent the views of Agriculture and Agri-Food Canada.

Le Bulletin est également disponible en français. To receive the newsletter, please contact:
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Potatoes are vegetatively propagated and accumulate virus and disease through successive field generations. Heirloom potatoes, older varieties which have been grown and exchanged for many years, are particularly susceptible to acquiring disease. This can cause the variety to weaken and become unproductive. Virus-freeing facilities remove disease from infected stock by a combination of heat and chemical treatment. This process results in "clean" *in vitro* plants, which may be maintained indefinitely in a bank, and cloned to provide a source of disease free material. It should be noted that, occasionally, the combination of inherent diseases makes virus freeing an extremely lengthy or impossible process. Virus-free heritage potatoes are sometimes available from other genebanks and repositories and may be acquired as healthy *in vitro* plants.

Eight new accessions were added to the Potato Gene Resources Repository in 2006. These heirloom varieties were chosen from a priority list of proposed additions to the bank, compiled from the suggestions of experts such as Garrett Pittenger, Seeds of Diversity Canada; Will Bonsall, Scatterseed Project, Maine; Alex Caron, heritage potato expert; and others. These eight represent a portion of the heritage accessions which will be added over the next few years.

Historical descriptions of the eight new heirloom varieties introduced from the NBDAA Canadian Potato Variety Repository in 2006 follows. Five additional varieties have been sent to a virus-freeing facility.

Beauty of Hebron

Generally claimed to have originated with E. L. Coy in Hebron, NY, as a seedling of Garnet Chili, Beauty of Hebron was introduced in 1878. Other accounts attribute parentage to a chance seedling of Peachblow.[8] Beauty of Hebron was very popular, particularly in New England and New York State. William Stuart, in his book The Potato, identified Hebron as one of the twelve groups of potato classification in the early 1900's. Some of the varieties included in this group, along with Beauty of Hebron, were Country Gentleman, Gem of Aroostook, Quick Crop, and Star-of-the-East.[9] Beauty of Hebron was also one of a number of American varieties sent to England between 1850 and 1880, to replace varieties discarded after the Potato Famine.[3] The cross between Beauty of Hebron and Magnum Bonum produced the British variety King Edward, which for the first half of the 20th century was one of Britain's most popular varieties. Evidence that this variety was also popular in Canada comes from the 1908 catalogue of McKenzie's Seeds of Brandon, Manitoba which described Beauty of Hebron as "A splendid main crop variety. The rosy white, oval shaped, shallow eyed beauty is an early variety of wonderful quality, ripening very evenly, of exceptional table quality, good cropper, excellent keeper and of fine appearance."[10]

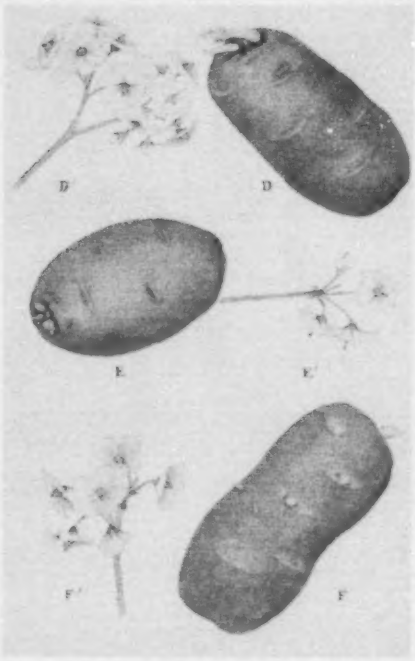

Plate from The Potato. Stuart, W. 1923. Showing flowers and tubers of D - Early Rose; E - Early Ohio and F - Beauty of Hebron

Bliss Triumph

The historical literature lists this variety as Triumph, with other synonyms including Red Bliss, Coconino, Hawaiian Rose and Stray Beauty. Bliss Triumph originated in Connecticut, and was introduced by B. K. Bliss & Sons in 1878. The original cross was between Early Rose and Peerless. Bliss Triumph was considered a good early variety that was grown in as many as 25 US states in 1946.[8] As a breeding line, it was valued for earliness, high yield and red tuber colour, although susceptible to many of the common potato diseases of the time.[8] A forecast of the challenges which synonymous names bring to identifying heritage potatoes was revealed by Stuart who stated "Of the list of names...Early Prospect is perhaps the most flagrant example of a recent occurrence of the re-naming of an old an easily recognized standard commercial variety, as it is ...Triumph, Honeoye Rose, Noroton Beauty, Quick Lunch and Wood's Earliest are identical (to Triumph)"[9]

Early Rose

Early Rose originated with Albert Bresee of Vermont in 1861 and is thought to be a seedling of Garnet Chili.[6] It was introduced to the public in 1868 by the B. K. Bliss & Sons company.[8] Early Rose was sent to England and was successful commercially in the Victorian years. It also was used in breeding programs and is a parent of Magnum Bonum, a popular late 18th century introduction, which for many years displayed a resistance to blight. In Germany, William Richter produced Imperator from a cross of Early Rose and Paterson's Victoria, in 1875. Early Rose was a popular French variety in the early part of the last century for field and garden culture.[4] In 1878, the Canadian Ag. Warehouse catalogue listed Early Rose as being "One of the best. One of the earliest. A universal favourite." Another recommendation came in the book "Money in the Garden", by P.T. Quinn,1871, in which Early Rose was described as " A large-sized tuber, smooth skin, few eyes, flesh white and steams and boils mealy." The Nebraska Seed Co. has an extensive potato listing for 1898 including Early Rose among others.[10]

Epicure

Raised by James Clark (1825-1890), a British fruit and vegetable expert who worked and wrote from his home in Christchurch, Hampshire, Epicure (1897), became an outstanding variety. It resulted from a cross of Magnum Bonum and Early Rose. Clark's was a very systematic breeding and selection program which produced several successful varieties. Epicure is a very early variety with a high yield of large tubers[11] and a good, floury cooking quality[3], and good frost recovery.[12] Epicure was more extensively grown in Scotland and Ireland in 1937 than all other earlies together.[1] Registered in Canada in 1923, Epicure is capable of tuber production at soil temperatures below those required by other varieties, has good storability, medium dormancy, and medium specific gravity.[12]

Gold Coin

This is a late maturing variety, producing oblong tubers with light russet skin and good cooking quality.[2] It's origin is unknown. The date of introduction is listed as 1903 in W. A. Burpee's Farm Annual of the same year[9] A Canadian reference comes from the 1915 Canadian Horticulturalist which recommends Gold Coin as good for the main crop.[10]

Red Warba

Red Warba arose as a chimera of a tuber of the white skinned variety Warba (Bliss Triumph x Minn. No.4-16) in 1933. The red part of the original red/white tuber was selected and propagated by the Minnesota Agricultural Experiment Sation and distributed to growers in 1936. Except for the tuber colour, it is the same as Warba. It gained popularity as an extra early, productive, red potato.[13]

White Rose

Also known as American Giant, White Rose, is claimed to have originated through the work of Rachel Campbell of Hebron, NY in 1893, from a seed of the Jackson potato. This variety has many synonymous names, Wisconsin Pride, Late Pride and California Long White. The characteristics of the variety are a high yield of long white tubers, with deep eyes, late maturity, medium tuber solids, and long dormancy.[14] Primarily a variety grown on the west coast of North America, the clone obtained from the NBDAA Canadian Potato Variety Repository, was donated by Cliff Ronayne, Pemberton, B.C.

Yellow Fin

Originating in the United States[5], and also known as Yellow Finnish, this traditional variety has yellow flesh and smooth white to yellow skin[7]. Tuber shape is oval to round, with shallow eyes. The flesh is firm when cooked and therefore the variety is classified as a salad type. The taste is described as moderate to good with smooth buttery flavour.[11, 15]

References

[1]Burton, W.G. The Potato. Chapman & Hall Ltd. 1948

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[3]Wilson, Alan. The Story of the Potato Through Illustrated Varieties. Balding & Mansell Ltd., Norfolk, UK, 1993.

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[6]Potato Association of America Variety List http://www.umaine.edu/paa/PVI.htm .

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[9]Stuart, W. The Potato. J.B. Lippincott Company, Philadelphia, USA, 1923.

[10]Seeds of Diversity Canada Heritage Plants databasePotato Catalogue Index http://www.seeds.ca/hpd/cv.php?species=Potato.

[11]European Cultivated Potato Database http://www.europotato.org/menu.php.

[12]Canadian Food Inspection Agency, Canadian Potato Varieties Descriptions http://www.inspection.gc.ca/english/plaveg/potpom/var/indexe.shtml

[13]Krantz, F.A. and A.G. Tolaas. 1939. The Red Warba Potato. Am Potato J 16:185-190.

[14]Vegetable Cultivar Descriptions for North America, Potato, edited by David Douches http://cuke.hort.ncsu.edu/cucurbit/wehner/vegcult/potato.html.

[15]Wisconsin Potato and Vegetable Growers Association http://www.wisconsinpotatoes.com/foodservice/varietal_information.php.

Annual Report 2006

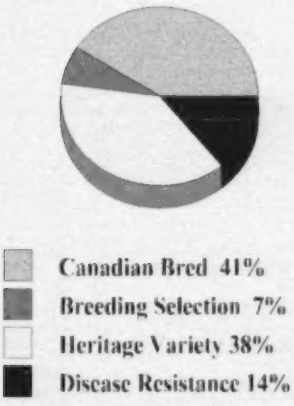
Potato Gene Resources Repository

Jane Percy

The Collection

1. Holdings

- The Potato Gene Resources Repository contains 132 clones. Of this total, 119 are maintained *in vitro* and 13 as tubers. A full listing of accessions may be found on the attached request form. The following chart shows the percentage of clones in each Repository category.



2. Accessions

- Eight *in vitro* clones were added to the Repository in 2006. They were obtained as part of the MII agreement with Seeds of Diversity Canada and Plant Gene Resources of Canada. The new accessions include Beauty of Hebron, Bliss Triumph, Early Rose, Epicure, Gold Coin, Red Warba, White Rose and Yellow Fin.
- No accessions were lost from the inventory in 2006.
- The MII to identify, obtain and preserve disease-free heritage potato varieties is proceeding. To date 5 varieties are undergoing virus freeing treatment, 8 varieties have been obtained and banked and several more are scheduled to be treated this fiscal year. The agreement between Plant Gene Resources of Canada and Seeds of Diversity Canada will see up to 30 heritage potato varieties added to the Repository. Based upon the criteria of the Repository and considering the accessions already represented, 166 heritage varieties were prioritized from a list provided by heritage potato experts.

3. Evaluations

- Several PGR clients send yearly reports of yield, cooking quality and disease reactions in their particular regions of North America. George Brinson of Carmanville, NL studies wart resistance. Many PGRR accessions have been screened and George sent this photo from his 2005 trial of some of the Fredericton clones.

Sixteen varieties were grown in an evaluation trial at the Potato Research Centre (see photos below). The evaluation plot consisted of two replications of fifteen hills of the following varieties: Batoche, Blue Mac, Canso, Canus, Crotte d'Ours, F58050, F66041, Garnet Chili, Lenape, Manota, Rambling Rose, Richter's Jubel, Slovenian Crescent, Straight Banana, USDA 41956, USDA X 96-56. Superior and Chieftain were grown as checks. The tubers and tuber light sprouts were photographed by Cynthia Murray. As well, chemical analysis for levels of total glycoalkloids (TGA), was performed by Jean Embleton and Leslie Read.

- Twenty potato varieties were tested for resistance to wart in Newfoundland by Steve Wood, CFIA.
- Twenty-nine clones were grown in 20 hill plots at the Benton Ridge Potato Breeding Substation, Benton, NB to provide material for demonstration and cooking quality throughout the winter and spring.
- Dr. Richard Tarn selected 169 potato clones, including all Potato Gene Resources accessions for a study on molecular characterization being conducted by Dr. Yong-Bi Fu, Plant Gene Resources Canada, Saskatoon, SK. Clones were grown in greenhouses in Fredericton and leaf material was harvested and sent to Saskatoon for the research.

4. Management

- Passport data for all PGR accessions has been added to the Genetic Resources Information Network - Canadian Version (GRIN - CA). GRIN - CA may be accessed through the Plant Gene Resources of Canada web site http://pgrc3.agr.gc.ca .
- Disease testing of new *in vitro* accessions and clones which have been maintained *in vitro* for five years was completed. Thirty clones were grown in the greenhouse and tested twice in 2006. All clones were negative for PVA, PLRV, PotLV, PVS, PVX and PVY. Results for PSTV and BRR are pending. Extra minitubers from the greenhouse growout will be offered to PGR clients in the spring of 2006.
- *In vitro* clones were screened for bacterial and fungal contamination using Potato Dextrose Broth and Richardson's Broth, twice during 2006. All clones currently in the Repository were negative for these contaminants.
- Production and harvest of microtubers of all *in vitro* accessions is ongoing. When complete, the microtubers will be sent to Plant Gene Resources of Saskatoon, to provide remote location, long term storage of the Repository accessions.
- Work continues on a proposal to create a specialized laboratory and growth room, at the Potato Research Centre, for the work of the Repository. Such a unit would address phytosanitary and security concerns, in accordance with international standards for genebanks.

5. Requests to the Repository

- Forty-five requests for 511 clones were received in 2006. Of this number, 214 clones were *in vitro*, 249 clones were field grown tubers and 48 clones were greenhouse grown minitubers. The intended use of potato clones requested from Potato Gene Resources in 2006 are tabulated below.

Purpose of Request	Request	Clones	*In Vitro*	Tubers	Mini-tubers
Breeding	2	5	0	4	1
Research	9	202	130	65	7
Demonstration	8	81	13	67	1
Evaluation	17	153	31	93	29
Preservation	8	69	39	20	10
Certification	1	1	1	-	-
Total	45	511	214	249	48

Five Year Compilation of Requests to Potato Gene Resources 2002 -2006

Year	Total	Breeding, research, or certification requests	Heritage evaluation, demo, or preservation requests	Total clones	Minitubers & tubers	*In vitro*	Micro-tubers
2002	32	13	19	218	148	70	0
2003	29	12	17	232	171	61	0
2004	39	20	19	496	405	91	0
2005	54	18	36	654	364	183	107
2006	45	12	33	511	297	214	0
5 year total	199	75	124	2111	1385	619	107

• AC Sunbury and Congo were the most requested clones in 2006.

Destination	Number of Requests
Newfoundland and Labrador	3
Prince Edward Island	3
Nova Scotia	3
New Brunswick	17
Quebec	5
Ontario	4
Manitoba	1
Saskatchewan	2
Alberta	2
British Columbia	1
USA	4
Total	45

Repository Items of Interest

- Requests for information about the Repository, the availability of clones, clone descriptions and pedigrees, and techniques for handling *in vitro* material were received throughout the year.
- The annual Potato Gene Resources newsletter has a distribution of 270.
- The newsletter may be accessed through a link on the Potato Research Centre website at http://www.agr.gc.ca/science/fredericton/index.htm.

Displays

- Potato Gene Resources clones were displayed during the Potato Breeding 2006 Advanced Release Open House held in February to promote new selections to industry. The cooking quality of heritage varieties was highlighted in the display. *In vitro* potato plants as well as minitubers and field tubers were displayed. Potato Gene Resources Repository newsletters with request forms and a handout describing the individual clones were also available.
- Dr. Richard Tarn attended Agrifest, Atlantic Canada's outdoor celebration of agriculture, food, gardening and the outdoors, held in Canning, NS, August 10-13, 2006. A display of the work of the Repository was presented. http://www.agrifest.com/ .
- Trudy Dalton represented Potato Gene Resources at New Brunswick Open Farm Day 2006. Along with other agricultural groups, PGR took part in an "on farm" display on Sunday, September 24, on Keswick Ridge, NB. A display of heritage potato tubers, *in vitro* plants and copies of the PGR newsletter and accession lists were presented. The event was organized by the Agriculture Producers Association of New Brunswick/Association des producteurs agricoles du Nouveau-Brunswick (APANB), http://www.fermeNBfarm.ca in conjunction with Canadian Agriculture and Food Celebration month in October.

Visitors

- Dr Barry Grace, Science Director, Biodiversity, visited the Repository in June.
- Patricia McAllister, Seed Potato Specialist with Alberta Agriculture and Food, at the Crop Diversification Centre North, Edmonton Alberta, visited the Repository in July, and met with Dr. Richard Tarn.
- Nicole McLaughlin, an Instructor, and Marc Cotê, a Student at CCNB Edmundston, Grand Falls campus, visited the Repository in November. Dr Richard Tarn also gave an overview of the potato breeding program.

Microtubers: A Solution for the Remote Location, Long-Term Back-up of the Potato Gene Resources Repository

Jane Percy

Potato Research Centre, AAFC

Genebanks place a high priority on preserving the germplasm in their care. Everyday controlled environments facilities are monitored, phytosanitary integrity is guaranteed, and the viability of material is assured. The Potato Gene Resources Repository (PGRR) preserves most of the collection of 132 potato clones *in vitro*. This material is grown in controlled environment cabinets which maintain a constant temperature, light intensity and daylength. These *in vitro* clones, grown at 17-19°C, require transfer to fresh media every 8 weeks and are always available to multiply and distribute. The Repository also maintains clones at 12°C, on a slow growth media. This increases the time between transfers and provides a back-up to the main collection. These regimens are considered short-term, on-site germplasm maintenance.

Genebanks also require more secure, longer term back-up of their accessions at geographically remote locations. Natural disasters such as the ice storm of 1998 and Hurricane Katrina, and events such as North America's largest power black-out in August 2003, demonstrate the need to store duplicate germplasm at sites which are not on the same power grid or weather track. The tragic 2003 fire at the Abundant Life Seed Foundation in Port Townsend, WA, USA in which their collection of native, heirloom and rare seeds - upwards of 1800 - was lost, also reinforces the need for remote location back-up of gene bank accessions.

The new Svalbard International Seed Vault, located in a concrete reinforced tunnel 70 meters into the mountain on the northern Norwegian Svalbard archipelago, will provide remote location storage for approximately 1,400 seed genebanks around the world.[1] Dormant seeds stored there, at a constant natural temperature of -18°C, will be safe from power failures and should remain viable for many years. Svalbard will act as a safety deposit box for the world's seed genebanks.

Clonally propagated crops, like potato, cannot be preserved in the same way as seed propagated crops in facilities such as Svalbard. Clonal crops require renewal and propagation on a regular basis. Long-term storage solutions, for potato, include cryo-conservation of potato meristems in liquid nitrogen. The Braunschweig potato cultivar collection, in Germany, reported in 1999 that 245 cultivars were cryo-stored with a survival rate of 55 - 100% and a plant regeneration rate of 40%.[2] To address the need for medium- to long-term remote location back-up, the PGRR has instituted a program of microtuber production. This involves production of microtubers from *in vitro* plants in Fredericton, NB which are harvested and shipped to the Plant Gene Resources of Canada (PGRC) site in Saskatoon, SK for longer term, geographically remote storage. Microtubers are readily produced from all the clones in the Repository, and easily harvested, transported and stored. Microtubers retain dormancy for many months, ensuring a back up of the original germplasm and a source of retrievable material in case of loss or disaster. PGRR has developed the following regimen for microtuber production which accommodates all potato clones in the bank and produces reliable results.

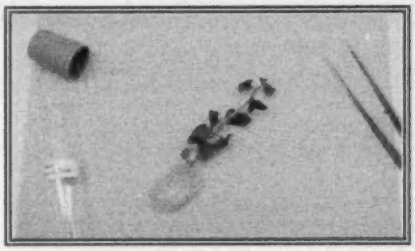


Fig.1 *In vitro* plant.

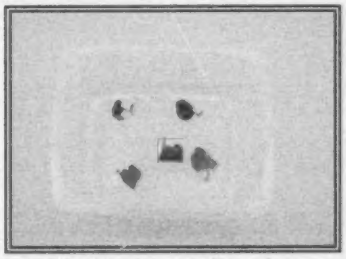


Fig.2 Propagation box with single node cuttings.

Microtubers are small potato tubers produced *in vitro*. At the PGRR, microtuber production begins with sterile dissection of an *in vitro* potato plant (Fig.1). The single node cuttings, each with an axillary bud and subtending leaf, are placed into propagation boxes containing a Murashige and Skoog basal medium with 8% sucrose (Fig. 2). Elevation of the level of sucrose from 3%, for standard *in vitro* potato growth, to 8% is a stimulus to microtuber induction and growth.[3]

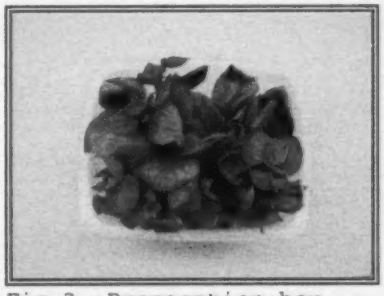


Fig.3 Propagation box with *in vitro* plants.

Propagation boxes are placed into a controlled environment cabinet at 17°C with daylength decreased from 16 to 12 hours. Reduction in daylength is an environmental stimulus to microtuber induction. No alterations are made to the nitrogen levels in the medium and no growth regulators are added due to concerns about the possibility of somatic change.

Following a period of growth of four to six months in this environment, the plants have begun to senesce, microtubers have formed and are ready to be harvested (Fig 3, 4, 5).

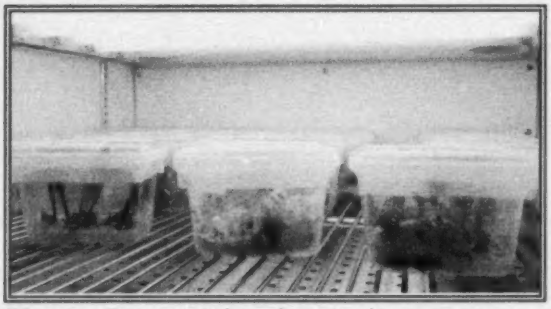


Fig.4 Propagation boxes in controlled environment chamber.

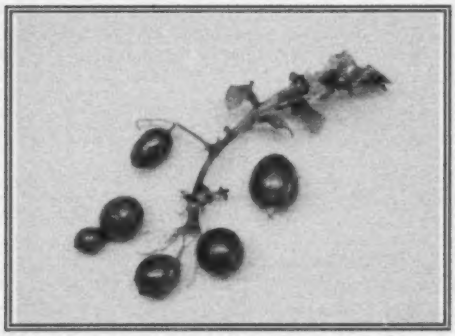


Fig.5 A senescent plant and some microtubers.

Approximately twenty microtubers of each clone are harvested aseptically and placed into two sterile petri dishes with damp filter paper (Fig.6). The dishes are sealed and prepared for shipment to PGRC, Saskatoon, SK (Fig.7). There they are stored in darkness at 4°C to extend their dormancy.[4] Microtubers remain dormant for many months under these conditions. When their natural dormancy is broken, microtubers produce shoots which will initiate new *in vitro* plants. Microtuber stocks are replenished about every 18 months.

This method of germplasm backup provides an efficient and reliable strategy for the PGRR to duplicate accessions, easily transport and safely store them at a remote geographic location, and have them available in the future, should the need arise.

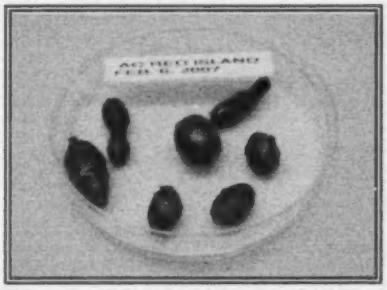


Fig.6 Microtubers of AC Red Island.

Fig.7 Petri dishes containing microtubers, ready to ship.

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4. Suttle, J.C. 2004. Physiological Regulation of Potato Tuber Dormancy. Amer J of Potato Res 81:253-262.

The Repository and the Seed Potato System

Richard Tarn

Curator

Potato Gene Resources Repository

Agriculture and Agri-Food Canada

Potato Research Centre

The Potato Gene Resources Repository provides *in vitro* plantlets and greenhouse or field tubers for breeding, research and heritage preservation. While extensively tested for freedom from disease, the plantlets and tubers distributed by the Potato Gene Resources Repository are produced outside the Canadian Seed Certification System and are not eligible for Certification.

The Canadian Seed Potato Certification System operates under the Seed Act and its Regulations. Certification begins with tested plantlets established *in vitro* in a facility accredited for this task by the Canadian Food Inspection Agency. The plantlets are used to produce greenhouse tubers which then go to the field in a limited generation system, at each step meeting strict standards specified in the Regulations.

The Potato Gene Resources Repository is not accredited for seed production by the CFIA.

Potato Research Centre Website

http://www.agr.gc.ca/science/fredericton/index.htm offers an overview of the mandate, resources and achievements of the Centre. The research studies being conducted at the Centre as well as the staff associated with those studies are highlighted. Links to the Potato Research Network and to other agriculture and potato related websites are also available.

Plant Gene Resources of Canada

Canada's Plant Germplasm System is a network of Centres and people dedicated to preserving the genetic diversity of crop plants, their wild relatives and plants present are unique in the Canadian biodiversity. The system plays a significant part of Agriculture and Agri-Food Canada's commitment to the Canadian Biodiversity Strategy in response to the Convention on Biological Diversity.

The Plant Gene Resources of Canada (PGRC) website located at http://pgrc3.agr.ca/ includes information on PCRC and the multi-nodal system of germplasm conservation in Canada as well as opportunities to search for germplasm on the Genetic Resources Information Network-Canadian version (GRIN-CA).

Dr. Ken Richards, Research Manager, Plant Gene Resources of Canada, may be contacted at richardsk@agr.gc.ca.

Personnel of the Potato Gene Resources Repository

Potato Research Centre

Richard Tarn - Potato Breeder

Agnes Murphy - Plant Pathologist

Trudy Dalton - Potato Breeding Technician

Jane Percy - Potato Gene Resources Technician

Donna Wilson - Plant Pathology Technician

Andrew Gardner - Supervisor

John MacDonald - Greenhouse Person

Danny Burnett - Greenhouse Person

Sylvia Holder - Greenhouse Person

POTATO GENE RESOURCES REPOSITORY ACCESSIONS 2006 - 2007

Clones are available as *in vitro* plants or as tubers (*), as indicated.

Two test tubes or two tubers (as available) of each clone are provided

ABNAKI*
AC BELMONT
AC BLUE PRIDE
AC BRADOR
AC CHALEUR
AC DOMINO
AC NOVACHIP
AC RED ISLAND
AC SUNBURY*
ACADIA RUSSET
ANGELINA MAHONEY'S BLUE
ANSON
AVON
BANANA
BATOCHE
BEAUTY OF HEBRON†
BELLEISLE
BLACK MIGNION/THE CUP
BLISS TRIUMPH†
BLUE MAC
BLUE SHETLAND
BRIGUS
BRITISH COLUMBIA BLUE
CAIN'S IRISH ROCKS
CALICO
CANDY CANE
CANSO
CANUS
CARIBE
CARIBOO
CARLTON
CHINOOK
CONESTOGA
CONGO
CORNE DE MOUTON
CROTTE D'OURS
CUPIDS
DONNA
DORITA*
EARLAINE*
EARLY ROSE†
EPICURE†
ERAMOSA
F 58050
F 66041
F 79055
F 79070
F 87084
FINGERLING
FORTYFOLD
FUNDY
GARNET CHILI
GOLD COIN†
GRAND FALLS
GREEN MOUNTAIN*
HAIDA
HOUMA
HINDENBURG*
HUNTER
HURON
JEMSEG
JOGEVA YELLOW ESTONIAN
K113-1
KESWICK
KIFLI
LA VEINE ROSE/LA BELLE ROSE
LENAPE
LIBERTAS*
LRC 373-5
LRC 4373-5B
LUMPERS
MacINTOSH BLACK
MANOTA*
MARC WARSHAW'S QUEBEC
MCINTYRE BLUE
MIRTON PEARL
MRS. MOEHRLE'S YELLOW - FLESHED
MOURASKA
MYATT'S ASHLEAF
NIPIGON
NISKA
NRBK 01 to NRBK11
NORTHERN WHITE
NOVA SCOTIA BLUE
OAC ROYAL GOLD
OAC RUBY GOLD
OAC TEMAGAMI
PINK FIR APPLE
PINK PEARL
PURPLE CHIEF
RAMBLING ROSE
RARITAN
RED GOLD
RED WARBA†
RICHTER'S JUBEL
RIDEAU
RIVER JOHN BLUE
ROSE GOLD
ROYAL KIDNEY
RUBY PULSIVER'S BLUENOSER
RUSSET BURBANK*
SABLE
SAGINAW GOLD
SHARON'S BLUE
SHEPODY
SIBERIAN
SIMCOE
SKERRY BLUE
SLOVENIAN CRESCENT
STRAIGHT BANANA
TOBIQUE
TRENT
UP-TO-DATE*
URGENTA*
USDA41956*
USDA X96-56
WHITE ROSE†
WHITE RURAL NEW YORKER*
YAM
YELLOW FIN†
YORK
YUKON GOLD

†New Accession 2006-2007

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

Research Branch | Direction générale de la recherche

POTATO RESEARCH CENTRE

POTATO GENE RESOURCES REPOSITORY REQUEST FORM

Name _____ Date _____

Organization _____

Mailing address _____

_____ Postal Code Country _____

Shipping address _____

_____ Postal Code Country _____

Telephone _____

Fax _____

E Mail _____

Personal information gathered on this form is used in order to respond to your request for tubers or plants. If you have any questions or concerns about your personal information, please call Jane Percy, Potato Gene Resources (506) 452-3160.

Clones requested: (Please refer to available clones listed on reverse)

1. _____

2. _____

3. _____

4. _____

(Please list additional clones on a separate sheet).

Preferred date of receipt: (Please allow at least 5 weeks) _____

For our records, would you please state the intended use of the requested clones (research, breeding, evaluation, or specify another use) _____

_____

☐ Clone descriptions required?

☐ Import permit attached if Phytosanitary Certificate required?

_____ Courier account number or alternate shipping arrangements

Please send this form to:

Potato Gene Resources Repository
Attention: Jane Percy
Agriculture and Agri-Food Canada
Potato Research Centre, P.O. Box 20280
Fredericton, New Brunswick Canada E3B 4Z7
E-Mail: percyj@agr.gc.ca
Telephone: (506) 452-3160 Facsimile: (506) 452-3316